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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
JERABEK, KELLY L	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/816,038	MEDWICK ET AL.	
	Examiner	Art Unit	
	Kelly L. Jerabek	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-25* is/are allowed.

6)☒ Claim(s) *1-3,7-9 and 14-16* is/are rejected.

7)☒ Claim(s) *4-6,10-13 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This case has been transferred to Examiner Kelly Jerabek. Please direct all future correspondence to Examiner Jerabek whose contact information can be found at the end of this office action.

Response to Arguments

Applicant's arguments filed 4/28/2005 have been fully considered but they are not persuasive.

Response to Remarks:

Applicant's arguments (Amendment page 17) state that since the Sugimoto reference states that a first image without a light emission of the flash lamp is taken before the flash lamp performs a preliminary light emission and takes a second image, the Sugimoto reference does not disclose generation of a supplemental strobe duration using a single preparatory image captured white generating preparatory light. The Examiner respectfully disagrees. Sugimoto discloses, in figures 5-9, a method of adjusting image lighting based on a preparatory image, comprising: generating preparatory light for a predetermined preparatory duration (Sugimoto teaches outputting a preliminary light emission if it is determined that a suitable exposure cannot be

obtained)(col. 9, line 26-col. 11, line 46). A single preparatory image represented by preparatory image data is captured while generating a preparatory light (preliminary light emission) (col. 10, line 58 – col. 11, line 12). **The Examiner is reading the image captured during the preliminary light emission as a "single preparatory image". Therefore, the fact that Sugimoto states that a first image without a light emission is captured prior to a preliminary light emission does not mean that Sugimoto does not disclose a single preparatory image.**

Applicant's arguments (Amendment page 18) state that neither the Sugimoto nor the Sugahara reference discloses generation of a supplemental strobe duration using a single preparatory image captured while generating the preparatory light. The Examiner respectfully disagrees. Sugimoto discloses, in figures 5-9, a method of adjusting image lighting based on a preparatory image, comprising: generating preparatory light for a predetermined preparatory duration (Sugimoto teaches outputting a preliminary light emission if it is determined that a suitable exposure cannot be obtained) (col. 9, line 26-col. 11, line 46). A single preparatory image represented by preparatory image data is captured while generating a preparatory light (preliminary light emission) (col. 10, line 58 – col. 11, line 12). **The Examiner is reading the image captured during the preliminary light emission as a "single preparatory image". Therefore, the fact that Sugimoto states that a first image without a light emission is captured prior to a preliminary light emission does not mean that Sugimoto does not disclose a single preparatory image.**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 7-9 rejected under 35 U.S.C. 102(e) as being anticipated by Sugimoto US 6,195,127.

Re claims 1 and 7, Sugimoto discloses, in figures 5-9, a method of adjusting image lighting based on a preparatory image, comprising: generating preparatory light for a predetermined preparatory duration (Sugimoto teaches outputting a preliminary light emission if it is determined that a suitable exposure cannot be obtained) (col. 9, line 26-col. 11, line 46); capturing a single preparatory image represented by preparatory image data while generating a preparatory light (preliminary light emission)

(col. 10, line 58 – col. 11, line 12); determining an average preparatory image luminance of the preparatory image represented by preparatory image data on the preparatory image data and weighting at least a subset of the preparatory image data (Sugimoto teaches performing a weighting operation on luminance data of a central portion of image data) (col. 11, lines 3-13; col. 9, lines 1-25).

Re claims 2 and 8, Sugimoto discloses, in figures 5 and 6, that generating the supplemental strobe duration further comprises: generating average block luminances for subsets of preparatory image data (Sugimoto teaches generating luminance data); applying the luminance weightings to at least a subset of the average block luminances to generate weighted average block luminance (Sugimoto teaches applying weighting amount data luminance data in a center of a screen): and determining the average luminance based on the weighted average block luminance (col. 6, line 3 – col. 7, line 21).

Re claims 3 and 9, Sugimoto discloses, in figure 1, the luminance weightings are stored in a weighting table (28,30) and the applying further comprises: accessing the weighting table to retrieve respective luminance weightings corresponding to portions of the preparatory image (co. 6, lines 17-67); and multiplying the average block luminance by the respective luminance weightings to provide the average weighted block luminance (col. 6, lines 17-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto in view of Sugahara et al. US 5,987,261.

Re claim 14, Sugimoto discloses, in figure 1, a digital imaging system comprising: a processor (32) electrically connected to a strobe (38); and an image sensor (12). Sugimoto also discloses generating preparatory light for a predetermined preparatory duration (Sugimoto teaches outputting a preliminary light emission if it is determined that a suitable exposure cannot be obtained) (col. 9, line 26-col. 11, line 46); capturing a single preparatory image represented by preparatory image data while generating a preparatory light (preliminary light emission) (col. 10, line 58 – col. 11, line 12); and determining an average preparatory image luminance of the preparatory image represented by preparatory image data on the preparatory image data and weighting at least a subset of the preparatory image data (Sugimoto teaches performing a weighting operation on luminance data of a central portion of image data) (col. 11, lines 3-13; col.

9, lines 1-25). However, Sugimoto does not expressly disclose a memory for storing a supplemental strobe duration.

Sugahara teaches a strobe device for generating a fixed amount of preparatory light a plurality of times to set an amount of actual light to be generated during photographing. Sugahara reveals that it is well known in the art to store the time of the actual light in a LUT (col. 4, lines 1-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sugimoto's device by implementing Sugahara's teaching in an effort to consistently and quickly obtain an appropriate amount of light.

Re claim 15, Sugimoto discloses, in figures 5 and 6, the processor divides the preparatory image data into subsets and generates average block luminances for each subset and applies the luminance weightings to at least a subset of the average block luminances, resulting in weighted average block luminance used to derive the weighted average block luminance (col. 6, line 3 – col. 7, line 21).

Re claim 16, Sugimoto discloses, in figure 1, a weighting table (28,30) that stores the luminance weighting.

Allowable Subject Matter

Claims 18-25 allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Re claims 18 and 21, the prior art does not teach or fairly suggest a method of adjusting image lighting on a preparatory image comprising generating preparatory light, determining an average preparatory image luminance and generating a supplemental strobe duration, wherein the system in capable of generating a look-up table that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Re claims 19 and 22, the prior art does not teach or fairly suggest a method of adjusting image lighting on a preparatory image luminance and generating a supplemental strobe duration, wherein the system is capable of generating a look-up table that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Re claims 20 and 23-24, the prior art does not teach or fairly suggest a method of adjusting image lighting on a preparatory image comprising generating preparatory light, determining an average preparatory image luminance and generating a supplemental strobe duration, wherein the system is capable of generating a look-up table that stores

image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Re claim 25, the prior art does not teach or fairly suggest a digital imaging system comprising a processor connected to a strobe and an image sensor coupled to a memory, wherein the processor is capable of accessing a look-up table in the memory that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Claims 4-6, 10-13, and 17objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claims 4 and 10, the prior art does not teach or fairly suggest a method of adjusting image lighting on a preparatory image comprising generating preparatory light, determining an average preparatory image luminance and generating a supplemental strobe duration, wherein the system in capable of generating a look-up table that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Re claims 5 and 11, the prior art does not teach or fairly suggest a method of adjusting image lighting on a preparatory image luminance and generating a

supplemental strobe duration, wherein the system is capable of generating a look-up table that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Re claims 6 and 12-13, the prior art does not teach or fairly suggest a method of adjusting image lighting on a preparatory image comprising generating preparatory light, determining an average preparatory image luminance and generating a supplemental strobe duration, wherein the system is capable of generating a look-up table that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Re claim 17, the prior art does not teach or fairly suggest a digital imaging system comprising a processor connected to a strobe and an image sensor coupled to a memory, wherein the processor is capable of accessing a look-up table in the memory that stores image strobe durations and power values including a preparatory image strobe duration and an associated preparatory power value.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ejima et al. (US 4,954,897) discloses an electronic still camera system with automatic gain control of image an image signal amplifier. The information regarding controlling the duration of a flash is relevant material.

Yamamoto et al. (US 5,438,367) discloses a still video camera and device for adjusting control data for an amount of strobe emission. The information regarding controlling strobe emission is relevant material.

Konishi et al. (US 5,420,635) discloses a video camera for capturing images under different exposure conditions. The information regarding controlling strobe emission is relevant material.

Horiuchi (US 6,825,884) discloses an imaging processing apparatus for generating a wide dynamic range image. The information regarding controlling strobe emission is relevant material.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached at **(571) 272-7382**. The fax phone number for submitting all Official communications is **(571) 273-8300**. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ